Work Order ID 73780

Thursday, September 15, 2011 10:25:31 AM

Item ID: D6101-003 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Saddle Billet, 7075

Start Date: 9/15/2011 **Start Qty:** 60.00 **Cust Item ID:**

Required Date: 11/4/2011 **Req'd Qty:** 60.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D6101	Rev B								
100	PURCHASING	0.00							
Purchasing	**Memo**	0.00							
Purchasing	Issue P/O: 14899 a)Description: Alluminum billet b) 7.875" x 6.250" x 2.00" thick c) Tolerance on all dimensions are +0.030"/-0.000" d) Grain direction along 7.875" length e) Material: 7075-T7351 (QQ-A-250/12) f) Material certification required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
Packaging	**Memo**	0.00							
Packaging	Ensure material certification is attached								

TL 11-09-15 (60)

(60)

Dart Aerospace Ltd

WORK ORDER CHANGES

W/O:

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Thursday, September 15, 2011 10:25:31 AM

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Run Start **Stop**

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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
QC	**Memo**	0.00	mf 11/10/19			60	ø		
Quality Control	Ensure Material certification comply to Dwg D6101								
130	Identify as per dwg & Stock Location: MAF44	0.00							
Packaging	**Memo**	0.00	mf 11/10/19			60	ø		
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00						11/10/19	
Quality Control								mf 11-10-19	

Dart Aerospace Ltd

WORK ORDER CHANGES

W/O:

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Picklist Print

Thursday, September 15, 2011 10:25:28 AM

Work Order ID: 73780

Parent Item: D6101-003

Parent Item Name: Saddle Billet, 7075

Start Date: 9/15/2011 **Required Date:** 11/4/2011

Start Qty: 60.00 **Required Qty:** 60.00

Comments: IPP A: □01.05.04□New Isue□EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	1	60	60	11/10/18	

Dart Aerospace Ltd

WORK ORDER CHANGES

W/O:

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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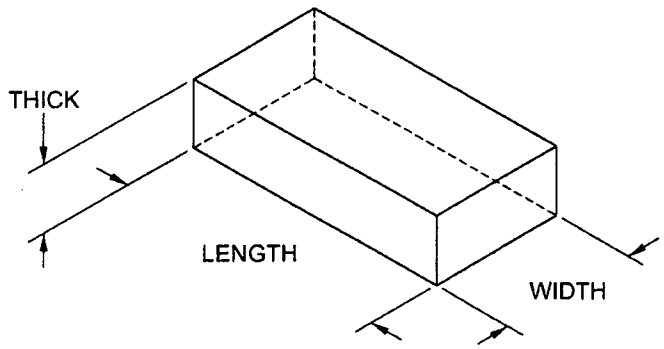
SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
B D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/NW

W/073780

REV.	DESCRIPTION	BY	DATE
B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30

DESIGN	CP	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D6101 — REV. B — SHEET 1 OF 1
MFG. APPR.		
APPROVED		TITLE: SADDLE BILLET, 7075 — SCALE: NTS
DE APPR.		
DATE	09.04.23	

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Dart Aerospace Ltd

WORK ORDER CHANGES

W/O:							
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:								
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

NOTE: Date & initial all entries

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Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

No de Formulaire d'Emballage / Shipment No:1024860

pédié de / Ship From:	Vendu à / Sold To:	Expédié à / Ship To:	Livré à / Deliver To:
M. Castle & Co. (Canada) :. ONTREAL 5-SELKIRK AVENUE INTE CLAIRE, QUEBEC R 3S2	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	WILL CALL-MONTREAL 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA

te d'expédition ate Shipped	F.O.B.	Modalités de transport / Freight Terms	Transporteur / Carrier	No du Bon de connaissement / BOL No
-OCT-2011	ORIGIN	Prepaid	MANITOULIN	1024860-2

tails d'expédition / Shipment Details	Destination finale / Final Destination Branch - MON

de commande / der No	N° de ligne Line No	N° d'article / Item No	Description
'45775	2	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12

de bon de commande / rchase Order No	Nbre de pièces / Part Number	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
399	YOUR ITEM NUMBER: D6101-003	60.00 PCS	60 PCS

tails / Details | SHIP NOVEMBER 2ND ONLY

de raison / livery No	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièces / PCS	Largeur (Pouce)/ Width (IN)	Longueur (Pouce)/ Length (IN)	Qté expédiée/ Shipped Qty(LBS)
063310		469765A2		49			497.88
063310		469765A2		11			111.77

narchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport aire aux lois des États-Unis est interdite.
e commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.
certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d' sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le ne peut être retourné pour crédit.

Printed: 17-OCT-2011 02:42:06 PM

SHIP TO:
CASTLE METALS AEROSPACE
14400 SO. FIGUEROA
GARDENA, CA 90248

SOLD TO:
CAS AERO% A M CASTLE METALS
ATTN:BOB OHR % ACCTS PAYABLES
3400 NORTH WOLF RD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM
Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4161027

CUSTOMER PO NUMBER:	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUN/LOAD ID:	GOV'T CONTRACT NUMBER:
8373		752237 AMC CA-15745	101525/8	

KAISER ORDER NO:	LINE ITEM:	SHIP DATE:	ALLOY:	CLAD:	TEMPER:	PRODUCT DESCRIPTION:
1082369	1	27-APR-2009	7075	BARE	T7351	MILL FINISH PLATE

WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	GAUGE:	WIDTH:	LENGTH:
15738 LB	11 PCS EST.	2022453	2.0000 IN	48.500 IN	144.500 IN

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev07
BSS 7055/RevA
DPS 4.713/RevAH
GSS16100/RevG/Amd1
AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN
AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 469765A2 Cast 222 Drop 37 Ingot 1

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.4 : 73.5	61.5 : 61.8	12.3 : 12.8
			(506 : 507)	(424 : 426)	

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.2 Min	40.4 Max
(MS/M) :	23.3 Min	23.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR		OTHER
Actual	0.07	0.13	1.4	0.04	2.5	0.18	5.8	0.02	0.01	0.01	TOT	0.04

KAISER ALUMINUM
Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4161027

Lot: 469790A0 Cast 222 Drop 34 Ingot 2

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	74.9 : 75.1	63.6 : 64.1	12.1 : 12.2
			(516 : 518)	(439 : 442)	

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.1 Min	41.2 Max
(MS/M) :	23.8 Min	23.9 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR		OTHER
Actual	0.10	0.22	1.6	0.03	2.5	0.19	5.7	0.04	0.01	0.02	TOT	0.05

Lot: 469880A9 Cast 222 Drop 28 Ingot 2

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	74.5 : 74.9	63.0 : 64.3	11.9 : 12.3
			(514 : 516)	(434 : 443)	

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.7 Min	41.0 Max
(MS/M) :	23.6 Min	23.8 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR		OTHER
Actual	0.09	0.20	1.6	0.03	2.4	0.20	5.7	0.04	0.01	0.01	TOT	0.05

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BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poynor